

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method of implanting a pressure measurement device in a heart of a patient, comprising the steps of:

providing a pressure ~~transducer~~ sensor assembly comprising a pressure transducer and a pressure transmission catheter, the catheter having a ~~proximal portion~~ and a distal end portion, ~~the proximal portion connected to the pressure transducer~~ the pressure transducer connected to the catheter proximal of the distal end portion, the distal end portion of the catheter having an opening with a barrier; and

positioning the catheter across a heart wall, with the opening disposed in a chamber of the heart.
2. (currently amended) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, further comprising the steps of:

providing an implantable telemetry unit;
connecting the telemetry unit to the pressure ~~transducer~~ sensor assembly; and
implanting the telemetry unit in the patient.
3. (currently amended) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the heart wall includes ~~myocardium~~ an epicardial layer, a myocardial layer and an endocardial layer, and wherein the positioning step comprises positioning the catheter across the ~~entire myocardium~~ epicardial layer, myocardial layer and endocardial layer.

4. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the chamber comprises a left ventricle, and wherein the positioning step comprises positioning the catheter across the heart wall with the opening disposed in the left ventricle.

5. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the chamber comprises a right ventricle, and wherein the positioning step comprises positioning the catheter across the heart wall with the opening disposed in the right ventricle.

6. (currently amended) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the heart wall comprises a ~~ventricular~~ septum, and wherein the positioning step comprises positioning the catheter across the ~~ventricular~~ septum.

7. (currently amended) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the pressure ~~transducer~~ sensor assembly includes a housing containing the pressure transducer, further comprising the step of securing the housing to the heart wall.

8. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 7, wherein the securing step comprises securing the housing outside the heart.

9. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 7, wherein the securing step comprises securing the housing inside the heart.

10. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the positioning step comprises a surgical approach.

11. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the positioning step comprises a transluminal approach.

12. (currently amended) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the catheter has a proximal portion and a distal portion, wherein the proximal portion is relatively crush-resistant and the distal portion is relatively flexible, and wherein the positioning step comprises positioning the relatively crush-resistant proximal portion in the myocardium and the relatively flexible distal portion in the chamber.

13. (currently amended) A method of implanting a device, comprising the steps of:

providing an implantable device comprising a telemetry unit connected to a pressure ~~transducer~~ sensor assembly connected to a catheter; and

implanting the device such that the catheter extends across a heart wall, with a distal end of the catheter disposed in a chamber of the heart and the pressure ~~transducer~~ sensor assembly connected to the heart wall outside the chamber.

14. (original) A method of implanting a device as in claim 13, wherein the heart wall includes myocardium, and wherein the positioning step comprises positioning the catheter across the entire myocardium.

15. (original) A method of implanting a device as in claim 13, wherein the chamber comprises a left ventricle, and wherein the positioning step comprises positioning the catheter across the heart wall with the opening disposed in the left ventricle.

16. (original) A method of implanting a device as in claim 13, wherein the chamber comprises a right ventricle, and wherein the positioning step comprises positioning the catheter across the heart wall with the opening disposed in the right ventricle.

17. (original) A method of implanting a device as in claim 13, wherein the heart wall comprises a ventricular septum, and wherein the positioning step comprises positioning the catheter across the ventricular septum.

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43. (canceled)

44. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 8, wherein the housing has a tissue in growth promoting surface and a tissue in-growth deterring surface, and wherein the securing step comprises securing the tissue in growth promoting surface to an epicardial surface of the heart with the tissue in growth deterring surface facing a pericardial: surface of the heart.

45. (canceled)

46. (canceled)

47. (canceled)

48. (currently amended) A method of implanting a device as in claim 13, wherein the heart wall comprises a ventricular septum, and wherein the positioning step

comprises transvenously navigating the pressure ~~transducer~~ sensor assembly until the catheter is disposed adjacent the ventricular septum, and positioning the catheter across the ventricular septum.

49. (previously presented) A method of implanting a device as in claim 48, wherein the positioning step comprises placing a septal anchor across the ventricular septum with the catheter disposed in the septal anchor.

50. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the barrier is flush with a distal end of the catheter, and wherein the positioning step comprises positioning the barrier carried by the distal end of the catheter in the chamber.

51. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the barrier is recessed from a distal end of the catheter, and wherein the positioning step comprises positioning the barrier carried by the distal end of the catheter in the chamber.

52. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 51, wherein a dissolvable material is disposed in the distal end of the catheter, and wherein the positioning step comprises positioning the dissolvable material carried by the distal end of the catheter in the chamber.

53. (canceled)

54. (canceled)

55. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 3, wherein an introducer sheath is initially disposed about the catheter, and wherein the positioning step comprises positioning the introducer sheath and catheter across the myocardium.

56. (canceled)

57. (canceled)

58. (canceled)

59. (canceled)

60. (currently amended) A method of implanting a pressure measurement device in a heart of a patient as in claim 11, further comprising the steps of:
providing a catheter;
navigating the catheter through the patient's vascular system and into the patient's heart; and
wherein the positioning step comprises advancing the pressure ~~transducer~~ sensor assembly through the catheter.

61. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 60, wherein the navigating step comprises positioning a distal end of the catheter adjacent a septal wall in the patient's heart.

62. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 61, wherein the distal end of the catheter includes an anchor, further comprising the step of engaging the anchor to the septal wall.

63. (new) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the barrier is compliant.

64. (new) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the barrier comprises a gel.

65. (new) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the barrier comprises a membrane.

66. (new) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the pressure transducer comprises a piezoresistive type transducer.

67. (new) A method of implanting a pressure measurement device in a heart of a patient, comprising the steps of:

providing a pressure sensor assembly comprising a pressure transducer and a pressure transmission member defining a cavity with a distal end portion, the pressure transducer connected to the member proximal of the distal end portion, the distal end portion of the member having an opening with a barrier; and

positioning the member across a heart wall, with the opening disposed in a chamber of the heart.

68. (new) A method of implanting a pressure measurement device in a heart of a patient as in claim 67, wherein the pressure transmission member comprises a tube.